REMARKS

Applicant has reviewed and considered the Office Action mailed September 16, 1998. In response thereto, a substitute specification and abstract are enclosed; Figures 1–5 are amended; claims 1–7 are canceled without prejudice or disclaimer; and new claims 8–14 are added. As a result, claims 8–14 are pending in the present application. Reconsideration of the present application is respectfully requested.

The substitute specification, abstract, amended drawings, and the new claims are drafted to conform with the formality requirement of a patent application as suggested by the Examiner. Applicant respectfully submits that no new matter is introduced in the above amendments.

On the merits, claims 1–7 are rejected under 35 U.S.C. §103(a) as being unpatentable over Evans or Boal, Jr. et al. It is asserted that it would have been obvious to one having ordinary skill in the art to use the legs of the container of Evans or Boal, Jr. et al for any type of container such as a pot.

New claim 8 recites a pot having a pot body and at least one leg, and the at least one leg has a fluid conduit enabling fluid communication both to and from the pot body. The fluid conduit not only drains excessive fluid in the pot body, but also absorbs the excessive fluid from a reservoir such as a tray or a fluid source when it is needed.

One of the applications of the present invention is a pot for flowers, plants, or vegetables. Traditional flower, plant, or vegetable pots have no legs. The main problem of the traditional pots is that the root can be easily damaged. Some pots have additional holes on the bottom of the pots for draining excess fluid to avoid root damages. But as a result, not only it causes loss of fluid (e.g. a mixture of water and fertilizer), but also the flowers, plants, or vegetables have to be irrigated frequently and carefully at least without having too less fluid. Sometimes, a tray is used to hold the excessive fluid at the bottom of a traditional pot. However, the root can still be easily damaged because the root has a tendency to grow down toward the bottom of a fluid level, i.e. toward the excessive fluid level in the tray. In addition, air circulation around the root is much poorer due to the limited space around the root caused by the tray.

To solve the above problems, the present invention provides a legged pot. The leg has a fluid conduit which is in fluid communication between the pot body and a fluid source or a tray, etc. Accordingly, the excessive fluid is drained out from the pot body to the tray or fluid source, and when needed, the fluid can be absorbed from the tray or fluid source to the leg and to the pot body. Thus, it significantly reduces the damages to the root and minimizes the loss of the fertilizer and water and the necessity of frequently watering or adding fertilizers to the plants, flowers, or vegetables, etc.

Applicant respectfully submits that Evans does not disclose or teach a pot as recited in claim 8. Evans discloses a container support to hold a container for storage and transportation. Evans discloses or teaches at most a tray for receiving the hazardous liquid spilled or leaked from the container. An opening 24 (see Figure 12 or 15) on the tray plate helps drain the liquid from the container to a collection bag 31. Evans does not disclose or teach a legged pot. Further, Evans does not disclose or teach a two–way fluid conduit to drain fluid from the pot body as well as to absorb fluid to the pot body. In fact, Evans teaches away from the claimed invention by teaching that the bag is arranged to collect material which passes through the opening 24, and a suitable one–way valve may be associated with that opening if desired (see column 7, lines 63–66).

Boal also does not disclose or teach a legged pot as recited in claim 8. Boal discloses a stackable, portable container for storing and transporting semisolid and fluid materials. Boal at most discloses and teaches a pallet base 3 having a plurality of rigidity imparting openings 18 (see Figures 3 and 4, column 6, lines 51–60) for supporting the container, a drain opening 33 in tank 5, and a side discharge valve 21 (see Figure 3 and column 4, lines 65–68) to allow the fluid to be drained from the tank (see column 4, lines 48–51). Accordingly, Boal does not disclose or teach a legged pot having a fluid conduit in the leg to drain fluid from the pot body as well as to absorb fluid to the pot body. In fact, Boal teaches away from the claimed invention by teaching that the fitting 20 and drain opening 33 can be equipped with threads to enable the fitting to be screwed into the drain opening 33 (see column 4, lines 51–54), which would largely interface with the fluid communication as recited in claim 8.

Therefore, Applicant respectfully submits that claim 8 patentably distinguishes from the cited references. Claims 9–14 which are dependent from claim 8 are also patentable over the cited references.

In view of the above amendments and remarks, it is respectfully submitted that the present application is in a condition for allowance. Reconsideration of the application and a favorable response are respectfully requested.

If a telephone conference would be helpful in resolving any remaining issues, please contact the undersigned at (612)336-4733.

Respectfully submitted,

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LEGGED POTS

Background of the Invention

I. Field of the invention

This invention relates to a new design of pots, "Legged Pots", for plants, flowers, or vegetable growth to reduce products cost and environmental contamination by fertilizer and pesticide. The legged pot is a valuable pot to save labor and material cost, to reduce water and fertilizer loss, and soil use. It is very useful in greenhouses, nursery fields, residential, and commercial places.

II. Description of Related Art

Traditional pots have no legs, only few holes on the bottom for draining excess water to avoid plant damage. But, the plant must be watered frequently. If tray is used to hold water, the plant can be easily damaged. In greenhouses or nursery fields, the pots are sit on the ground or on the table with no flat. As a result, fertilizer and/or pesticide drain out with the water from the pot into the ground causing environmental contamination.

In greenhouse and nursery field, watering cost is very high. Scientists use trickle irrigation system to reduce the watering cost. The system worked well to solve this problem. However, the cost for setting up the system (both labor and material costs) is still high, and workers have to frequently check each dropper to insure it is working properly. Sometimes the water bill increases, which means more water is wasted by using this method. The problem of soil and ground water contamination by fertilizer and pesticide is still not solved. Not many producers like to use the trickle irrigation system.

Scientists also use the wick method to reduce the frequency of watering needed for small pots. The problem of over–watering is solved using this method. However, the pot's cost doubles because a support pot has to be used, and the wick has to be inserted by hand. The limitation of this method is that the wick can be used only in small pots.

Some producers use hydroponics to produce their products. This method includes sand culture, and requires a concrete construction. The cost is very high, the plants are easily damaged by water, and disease spread is very likely.

Summary of the Invention

"Legged Pot" means there are legs under the pots (see fig. 1). The legs are filled with soil. It is so that water can be absorbed by the soil from a plastic film or tray. This way the plant will not be damaged by water, water will never be lost, and hand watering is now unnecessary in greenhouses and nursery fields.

Brief Description of the Drawings

Figure 1 illustrates a schematic perspective view of a legged pot generally in accordance with the principles of the present invention.

Figure 2 illustrates a schematic front view of the legged pot of Figure 1.

Figure 3 illustrates a schematic top view of the legged pot of Figure 1.

Figure 4 illustrates a schematic perspective view of a plurality of legged pots of Figure 1 sitting on a tray.

Figure 5 illustrates a schematic perspective view of a legged box sitting on a tray.

Detailed Description of the Preferred Embodiment

The Legged Pot, my invention, has more advantages than regular pots with the trickle irrigation system and wick method. Legged Pots with plastic film flat in greenhouses and nursery fields or with a tray in residential or commercial places are the best design for plant growth. All the problems of traditional pots with the trickle irrigation and wick method are solved when using this design of pots. No water is lost, no fertilizer or pesticide goes into the ground, and the water will never damage the plants. Material cost is very low. Less soil is used because the soil environment in the pot is improved. Almost no watering cost. Only thing needed for watering plants is just turning on the faucet in greenhouses and nursery fields. Possibility of disease spread is dramatically decreased. Watering plants once a month in residential and commerce place.

As shown in Figures 1–3, a pot, referenced as 20, includes a pot body 22 and a plurality of legs 24. The pot body 22 has a base 26 which is in fluid communication with the legs 24, and side walls 28. The base 26 also has a plurality of air circulation vents 30. Each of the legs 24 has a fluid conduit 32 in fluid communication between the pot body 22 and a fluid source (not shown) or a tray 34 (best seen in Figure 4).

Legged pots used in greenhouses and nursery field with the tray 34, e.g. a plastic film underneath (see Figure 4) can be watered only once a week or once another week. The sides of film are held up by wooden rods 36, steel wire (not shown), or even by soil to make the tray 34 hold water. The depth of the tray 34 is about 3–5 inches and there is no limit on the length. A faucet 38 can be placed on one end or midway for water irrigation.

The legs can also be applied to regular trays. It looks like a "Legged Box" 40 (see Figure 5). Their size can be varied. The depth ranges from 4 to 7 inches. The number and length of the legs depends on the size of the box. Its functions like a flower or vegetable bed. The flat of plastic film used are the same as described in above paragraph.

The legged pots or boxes can be used in sand culture to solve the problems. The pots, boxes, and flat of plastic film used are the same as described in above paragraph too.